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FIG.1A

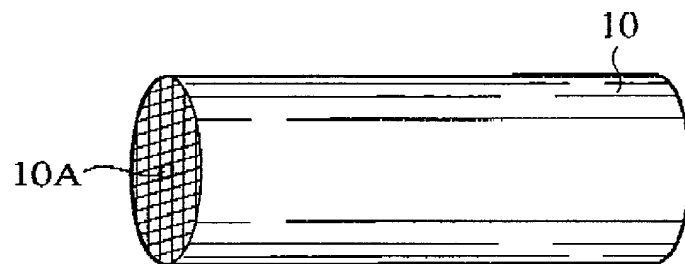


FIG.1B

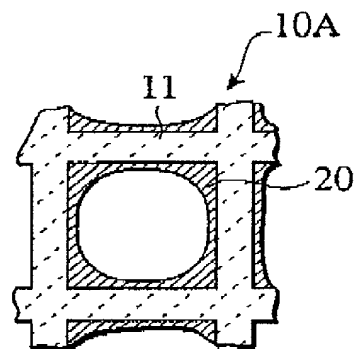
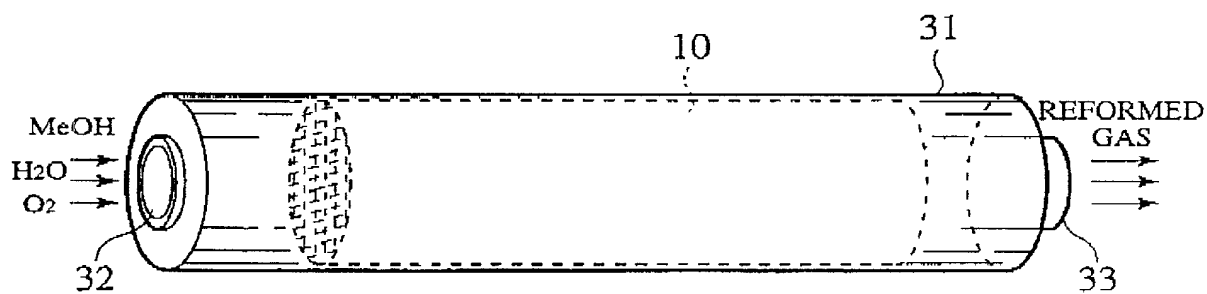
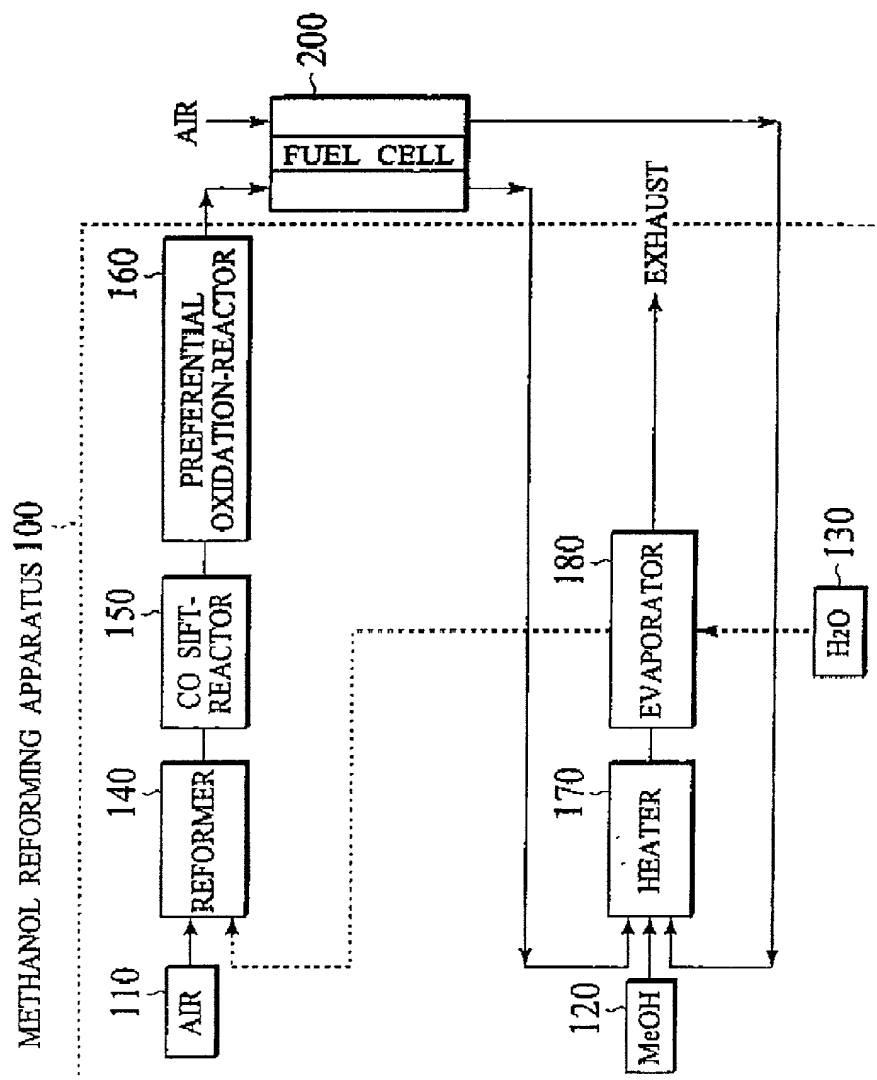


FIG.2



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FIG.3



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FIG.4

Table

| Example | Catalyst No | Composition of catalyst supported material/(support) | Pd:Zn (mol ratio) | Burning temperature (°C) | Reducing temperature (°C) | Reformation rate (%) | CO concentration (%) |
|-----------------------|-------------|--|-------------------|--------------------------|---------------------------|----------------------|----------------------|
| example 1 | catalyst 1 | 5%Pd-3.06%Zn/(68%CeO ₂ -32%ZrO ₂) | 1:1 | 500 | 500 | 98 | 2.5 |
| example 2 | catalyst 2 | 5%Pd-6.12%Zn/(68%CeO ₂ -32%ZrO ₂) | 1:2 | 500 | 500 | 99.8 | 2.1 |
| example 3 | catalyst 3 | 5%Pd-30.6%Zn/(68%CeO ₂ -32%ZrO ₂) | 1:10 | 500 | 500 | 99.3 | 1.1 |
| example 4 | catalyst 4 | 5%Pd-6.12%Zn/CeO ₂ | 1:2 | 500 | 500 | 98.8 | 2.2 |
| example 5 | catalyst 5 | 5%Pd-6.12%Zn/ZrO ₂ | 1:2 | 500 | 500 | 99.7 | 2.3 |
| example 6 | catalyst 6 | 5%Pd-6.12%Zn/(20%CeO ₂ -80%ZrO ₂) | 1:2 | 500 | 500 | 99.5 | 2.2 |
| example 7 | catalyst 7 | 5%Pd-6.12%Zn/(68%CeO ₂ -32%ZrO ₂) | 1:2 | 400 | 400 | 98.3 | 2.3 |
| example 8 | catalyst 8 | 5%Pd-6.12%Zn/(68%CeO ₂ -32%ZrO ₂) | 1:2 | 600 | 600 | 98.5 | 2.1 |
| comparative example 1 | catalyst 9 | 5%Pd/(68%CeO ₂ -32%ZrO ₂) | | 500 | 500 | 92 | 10.5 |
| comparative example 2 | catalyst 10 | Cu-ZnO | | 400 | 400 | 85 | 1.1 |
| comparative example 3 | catalyst 11 | 5%Pd/ZnO | 1:20 | 500 | 500 | 89 | 2.4 |